

REMARKS/ARGUMENTS

Applicant respectfully disagrees with the Office Action at page 3, last paragraph, which states that using the several different sensors described in the application is “an obvious matter of design choice,” or that “Applicant has not disclosed that the above sensors provides an advantage, or solves a stated problem.” Since claim 35 is now amended to recite a specific type of sensor – namely, a photodetector – Applicant is not addressing these sensor arguments at this time. Note that photodetectors are discussed, for example, beginning at page 6, line 10.

Claim 35 is the remaining independent claim. Claim 35 includes limitations not disclosed by or made obvious in view of the prior art. For example, claim 35 now recites “photodetectors fixedly coupled to the conduit”. The photodetectors “are responsive to sunlight passing through the canopy of the grapevines”. Thus, the photodetectors provide a direct type of sensing in order to measure grapevine growth.

Hall discloses several types of indirect photo sensing but only discloses one type of direct photo sensing. This is shown in Hall at col. 16, line 48 as a photometer. Hall does not disclose any further details about how to use the photometer but it is well-known that at the time of Hall a photometer was typically a handheld large device that would not be suitable for use in the manner to which Applicant’s claims are limited. For example, limitations of “fixedly coupling” the photodetectors to the conduit which is part of an “under vine canopy dripper”; having “signals from the photodetectors are transmitted to a central control system,” etc. are not disclosed. Hall’s use of a photometer as the only disclosed use of a direct growth sensing approach that uses light teaches away from applicant’s photodetectors used in the specific way as recited in claim 1.

Hirsch discloses use of a photocell only to measure “consumptive use” of water. See Hirsch at col. 8, lines 31-55.

Iggulden does not address photodetectors or light sensing.

Applicant’s disclosed reference, US Patent 5,793,035 to Beck, uses a photodetector in a reflective, or indirect application. See, e.g., Beck’s “light detector 7” in Fig. 1. In addition, Beck does not disclose the several other limitations of claim 35 described, above.

Applicant respectfully submits that the present claims are in condition for allowance and an early Notice of Allowance is earnestly sought. The undersigned may be contacted at the telephone number below at the Examiner's convenience if it would help in the prosecution of this matter.

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Respectfully submitted,
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